

SUBJECT: Additions to Existing Buildings

EFFECTIVE DATE: October 25, 2010

INTERPRETATION NUMBER: ADM – 1.3403.1

SEE ALSO: 2006 IBC – Section 3403.1, 2006 IBC Commentary Vol. II

INTERPRETATION SUMMARY

This interpretation deals with the application of the provisions of the last sentence of section 3403.1 as it applies to additions to buildings which contain construction components that would cause the building to be classified as construction type V or III.

Section 3403.1 of the International Building Code reads as follows:

3403.1 Existing buildings or structures. *Additions or alterations to any building or structure shall conform with the requirements of the code for new construction. Additions or alterations shall not be made to an existing building or structure which will cause the existing building or structure to be in violation of any provisions of this code. An existing building plus additions shall comply with the height and area provisions of Chapter 5. Portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements for a new structure.*

It should be noted that the code provides two options for a designer to choose from in the design of building additions. One option is to design the addition as an enlargement of the existing building without providing any fire-resistive separations between the existing construction and the new construction. This is permissible as long as the resulting composite building is still within the allowable height and area for the construction type. Even larger increases in allowable area in such composite buildings are permitted if a fire sprinkler system is provided throughout the existing building and the added floor area or if the type of construction is upgraded to a type that would allow larger basic areas. The second option is to construct the addition as a completely new and separate building with a zero setback from the existing building but with the appropriate fire-rated walls to separate the new “building” from the existing building. The second alternative also permits a building of differing construction type from the existing building to be constructed next to an existing building.

It is noteworthy that Section 3403.1 addresses both additions and alterations, but provides for different applications depending on whether the work in question is an addition or an alteration.

The following provisions apply to both additions and alterations:

- “shall conform with the requirements of the code for new construction.”
- “shall not be made to an existing building or structure which will cause the existing building or structure to be in violation of any provisions of this code”

The following provisions only apply to additions:

- “shall comply with the height and area provisions of Chapter 5”

The following provisions only apply to alterations:

- “Portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements for a new structure”

Since the portion that provides an exception from compliance with the code requirements for a new structure specifically applies only to alterations, and since Section 3403.1 specifically provides that additions shall comply with the height and area provisions of Chapter 5, it is our interpretation that the exceptions for noncompliance with the code requirements for a new structure would not apply in determining the building’s construction type for the purpose of determining allowable height and area.

Parenthetically, it is clear that the intent of the last sentence in the section is that in alterations, portions of the building unaltered and unaffected by the proposed alteration are not required to comply with the code requirements for a new structure. Since the sentence includes the phrase “not affected” in addition to the term “not altered”, the implication is that a determination must be made about whether or not the alteration will affect the other areas of the building. Chapter 1 of the building code grants to the Building Official the authority to make any such final determinations. In order to be exempt from current code requirements, the unaltered area must meet both criteria.

The second sentence makes it clear that a proposed addition cannot cause an existing building to come into violation of the code. A new building (in building code terminology an addition can be a separate building if it is separated by the appropriately rated fire-walls) can’t be constructed next to an existing building if it will reduce the open area around the existing building to the point that it would no longer be in compliance with the area and height limitations in chapter 5 of the 2003 IBC. Our local interpretation of the intent of Chapter 34 would offer one exception to this requirement. In many examples in Chapter 34, existing conditions in existing buildings are not required to conform to the current code if they were code compliant at the time of the original construction. Allowable height and area requirements in the Uniform Building Code (the code previously adopted by the city for almost 40 years) were fairly static for many years. However, the IBC drastically changed many of the requirements as that code attempted to build in more incentives for sprinkling. In some cases, buildings that were constructed under the UBC would have been compliant for allowable area even with a reduction in open space around the building even though the same building constructed under the new IBC requirements could not be as large. Therefore, it would be our interpretation that if a building was constructed between 1967 (the earliest year that the adopted code is still available for reference) and 2005 (the year that the IBC was adopted in Salina) in conformance to the allowable heights and areas in the duly adopted code in affect at the time the building was constructed we will review the existing building for allowable area under the provisions of the code in place when the building was constructed, and if a reduction in open area would still leave the existing building in compliance, we would deem that as acceptable.

Fundamental to making determinations with regard to height and area is an accurate assignment of construction type and occupancy. Our interpretation for the application of this requirement is that the construction type must be categorized as it actually is, not as it could be if certain inconsistent elements are ignored or considered “nonconforming”. The most problematic condition that occurs in existing buildings is the inclusion of wood construction in some portion of the building. Other than heavy timber buildings, only two types of construction

permit wood to be used in the building's construction, Type V which permits virtually any type of construction and Type III. Type III is even more restrictive than Type V and does not permit combustible materials for exterior wall construction and generally has fire resistive ratings for most exterior wall applications. Unfortunately since Type V construction is potentially the most combustible and therefore the most hazardous type of construction it is the most limited type of construction in the building code in terms of allowable area. If the building cannot be enlarged because there are some building elements that prevent the building being classified as a type of construction that would allow a larger area, we believe that it is inconsistent with the intent of this section to ignore those elements in the classification of the building construction type in order to gain a larger allowable area and then interpret the last sentence of the section to then allow those nonconforming elements to remain uncorrected. We believe that this reasoning is also supported by the code since the designer always has the option of upgrading the type of construction in order to achieve a larger basic allowable area. This would include not only changing from Type B to Type A, but also from combustible to non-combustible.

It is therefore our interpretation that for the purpose of determining allowable height and area for alterations, additions or changes in occupancy, existing buildings must be classified as the Construction Type that most closely resembles the actual construction, even if such classification results in a determination that the existing building is too large to conform with current code requirements. We believe this interpretation is also consistent with the interpretation found in the IBC Commentary regarding this code section. The following are excerpts from that commentary; Elaborated on IBC Code Commentary.

“An addition is an increase in the area to an existing building. When a new building is erected immediately adjacent to an existing building and they are separated by a fire wall, it is considered a separate building, not an addition to the existing structure. The new building must be designed to comply with the technical provisions of Chapters 1 through 33; not with the provisions of this chapter (chapter 34) (which chapter?). **The existing building must be evaluated considering the elimination of the adjacent open space now occupied by the new building.**

An existing structure that is of a type of construction that does not comply with the height and area limitations of Table 503 may not be added to, **unless the type of construction is upgraded or the allowable building height and area are increased through the addition of a sprinkler system throughout both the existing building and the addition.** Sprinkler system may need to be discussed as an option in paragraph #3

A building with a proposed addition is to be evaluated based on the type of construction of the existing building or the addition, **whichever is the lower type.**”

In conclusion it is our interpretation that in those instances where types of construction exist within the existing building that would be incompatible with a type of construction that would permit larger areas, those incompatibilities cannot be ignored by applying the pre-existing nonconforming exception for alterations. The actual type of construction based on all existing conditions must be used to determine the allowable height and area for the existing building.